

Reducing The Risk IN THE YARD AND GARDEN



SAFER ALTERNATIVES

Introduction

One of the best means of avoiding exposure to household hazardous materials is to use safer alternatives whenever possible.

Included in this section are time-honored recipes and suggestions to help you make the switch toward safer household products. Ingredients followed by instructions will guide you through an array of easy-to-make, easy-to-use safer alternatives. Some ingredients recommended as alternatives are safer, but not nontoxic.

The suggested alternatives that follow are only a sampling of available options and are borrowed from the references listed in the bibliography at the end of the section.

Making your own simple and effective products is fun and economical. We think you will be happily surprised with the results.

Aerosols

Aerosols contain an active ingredient and a liquid or gaseous propellant that is packed under at least 40 pounds of pressure per square inch. These pressurized aerosol containers are explosive and may be flammable. Depending upon other ingredients, the aerosol sprays may be irritants, corrosives, poisons or contain chlorofluorocarbons (CFCs).

Prevention. Use non-aerosol (pump-spray, roll-on or liquid) products.

De-Icers

Salt alternative. Use sand, chicken grit or kitty litter (instead of salt) for traction on icy walkways or driveways.

Fertilizers

Prevention. The most important step to a healthy lawn or garden is to determine your soil's nutritional needs. Your county's Cooperative Extension program can refer you to labs that can test your soil for any nutrient or mineral deficiencies, and the Cooperative Extension program can provide you with other information to help you maintain a healthy soil.

Compost. Grass clippings, dead leaves and non-meat kitchen wastes are a valuable resource: don't waste them, compost them. Use of compost can improve a garden's soil structure and stability, while slowly releasing nutrients essential for good plant growth.

Use peat moss, green sand (glaucanite), bone meal, kelp-meal, fish meal, fish emulsions and chicken, rabbit or cattle

manure in various combinations with compost leaves and other yard wastes. Natural amendments release nutrients gently over a longer period of time than synthetics.

Coffee grounds. Dried coffee grounds add acid to the soil.

Inorganic. If you use an inorganic fertilizer use a slow release fertilizer with 50% of the nitrogen in insoluble form. Calculate and apply carefully – no more than 1 lb. of nitrogen per 1,000 square feet. Don't apply if heavy rain is predicted. Use caution on slopes, lawn edges, etc., to prevent the fertilizer from washing into lakes or streams. Excessive amounts of organic and inorganic fertilizers can pollute water.

Hand Cleaners

Prevention. Use nitrile or other type gloves suited for the activity.

Oils. Massage hands with a few drops of baby oil, margarine or butter, or petroleum jelly; wipe dry; wash with soap and water.

Non-toxic. Use a lanolin and glycerin-based, non-toxic hand cleaner.

Herbicides

Prevention. Reduce weeds by mulching and using a ground cover.

Salted boiling water. Salted boiling water will immediately kill grass or weeds growing between sections of cement walks or drive ways.

Salt. In non-garden areas salt can be used effectively for general weed control.

CLUBROOT.

Rhubarb leaves. As a preventative against clubroot, boil rhubarb leaves in water and pour into holes before planting seeds.

MOSS.

Prevention. Moss growth may be caused by low soil fertility, too much shade, frequent light watering, accumulation of thatch or mats of old grass clippings or any combination thereof. Unless the basic problems are corrected, any attempt at control will be incomplete and/or temporary. To prevent moss growth use infrequent and heavy watering practices, this will encourage deeper grass rooting and will help dry out moss. Thatch your lawn and rake out the moss. Regular fertilizing will help develop a healthier soil.

POISON IVY.

Soapy water and salt. Spray the area with a solution of 2 gallons soapy water and 3 pounds of salt. A few dousings will kill it.

Pest Control

There are many strategies for controlling garden pests without unduly upsetting the local ecology of your garden. These strategies include cultural controls (nutrition, resistant varieties, interplanting, timed planting, crop rotation, mulch, trap crops, and cultivation), mechanical controls (handpicking, physical barriers, traps), biological controls (predatory and parasitic insects, microbes), and sprays and dusts. Because information is too varied to make suggestions in this limited space, we refer you to the bibliography at the end of this section, your library, colleges, and extension center for details on integrated and natural pest control.

PESTICIDES.

DO NOT USE. Aldrin, Chlordane, Cyanide, DBCP, DDT, Dieldrin, Heptachlor, Kepone, Lindane, Mirex, Silvex, 2,4,5,-T, Toxaphene, Arsenates, Sodium Arsenite, Creosote, Pentachlorophenol (PCP).

Prevention. Interplanting compatible species and "companion planting" can be effective ways to repel pests and mildew. Get rid of infested plants. Remove ripe vegetables and fruits before they rot and attract insects. Use resistant plant varieties whenever possible.

Hose plants off. Wash insects from outdoor plants with a strong hosing, preferably in the morning.

All purpose spray. For an all-purpose spray, grind together three hot peppers, three large onions and one whole bulb of garlic. Cover the mash with water and let stand overnight. Strain through a cheesecloth and add enough water to make a gallon of spray. Use on roses, azaleas, mums and beans three times daily for one or two days during heavy infestation.

Garlic clove. Plant a garlic clove along with your plant. As it grows, simply keep cutting it down so it will not affect the appearance of your plant. Garlic will not harm the plant, but bugs hate it.

Tobacco. Place tobacco on potted plant soil. This helps control indoor infestations of a variety of pests that hatch from eggs deposited when plants are outside.

Tobacco and water spray. Place a large handful of pipe or cigarette tobacco in 4 quarts of warm water. Let stand for 24 hours. Dilute and apply with a spray bottle. Nicotine is deadly to mammals in high concentration: use caution when handling.

Soap and water spray. Mix up a solution of liquid soap and water in a pump-spray bottle at the ratio of 2 1/2

teaspoons per quart. Spray infested leaves with soapy water, then rinse off with plain water after a few minutes.

Row covers. Use floating row covers, these are cheesecloth-like fabrics that act as a barrier to egg-laying adults.

Natural predators. Helpful predators around the home include frogs, spiders, ladybugs, praying mantis, lacewings and dragonflies. Many of these beneficial creatures can be purchased commercially.

ANTS.

Pennyroyal, Spearmint, Southernwood, and Tansy.

Growing these plants around the border of your home will deter ants and the aphids they carry.

Flour and Borax. Mix 1 cup flour and 2 cups borax in a quart jar. Punch holes in the jar lid. Sprinkle the contents around the house foundation. Keep borax out of the reach of children and pets.

Bonemeal or powdered charcoal or lemon. Set up barriers where ants are entering your home. They will generally not cross lines of bonemeal or powdered charcoal. If you can find a hole where ants are entering the house, squeeze the juice of a lemon in the hole or crack. Then slice up the lemon and put the peeling all around the entrance.

APHIDS.

Prevention. To reduce aphids, water only the soil and roots – not the foliage.

Tomato leaf spray. Soak mashed tomato leaves in water and apply as a spray on trees and roses bushes to prevent aphids.

Herbs. Anise and coriander discourage aphids.

Onions and garlic. Onions and garlic will protect your plants from aphids on lettuce and beans.

CABBAGE MOTH.

Herbs. Mint, sage, dill and thyme protect cabbage, cauliflower, broccoli and Brussels sprouts from the cabbage moth.

CABBAGE WORMS.

Salt. A tablespoon of table salt to 2 gallons of water can be used against cabbageworms.

CARROT FLIES.

Onions and garlic. Onions and garlic will protect your plants from carrot flies on lettuce and beans.

CATERPILLARS.

Prevention. Remove from plants by hand. Many caterpillars hide during the day and feed only at night. Night hunting with a flashlight may prove useful.

Do nothing. Accept low levels of damage; is perfect fruit necessary?

Natural predators. Encourage natural predators: build birdhouses and set up birdbaths to attract swallows and other allies.

FLEA BEETLES.

Talcum powder. Just dust a little on the ground or around the plants; it works like a charm in repelling flea beetles. When the rain washes it away add more.

FLIES.

Prevention. Keep kitchen garbage tightly closed. Sprinkle dry soap or borax into garbage cans after they've been washed and allowed to dry; it acts as a repellent.

Orange. Scratch the skin of an orange and leave it out; the citrus acts as a repellent.

Cloves. Hang clusters of cloves to repel flies.

Mint or Basil. Mint planted around the home repels flies. A pot of basil set on the windowsill or table helps to repel flies. Keep basil well-watered from the bottom so that it produces a stronger scent. Dried ground leaves left in small bowls or hung in muslin bags are also effective.

Fly Swatters, Fly Traps, or Fly Paper. Use according to label directions.

Sugar and Corn Syrup. Make your own flypaper by boiling sugar, corn syrup, and water together. Place mixture onto brown paper and hang or set out.

Egg, Molasses, and Black Pepper. Beat the yolk of an egg with a tablespoon each of molasses and finely ground black pepper. Set it about in shallow plates. Flies will be rapidly killed.

JAPANESE BEETLES.

Onions and garlic. Onions and garlic will protect your plants from Japanese beetles on lettuce and beans.

MAGGOTS.

Radishes. Radishes planted near cabbage repel maggots.

MICE.

Mashed potato powder or buds. Place instant mashed potato powder or buds in strategic places with a dish of water close by. After eating the powder or buds mice will need water. This causes fatal bloating.

Mouse Traps. Use according to label directions.

MOLES.

Castor Oil and Liquid Detergent. Whip together 1 tablespoon castor oil and 2 tablespoons liquid detergent in a blender until the mixture is like shaving cream. Add 6 tablespoons water and whip again. Keep this mixture out of the reach of your children and pets. Take a garden

sprinkling can and fill with warm water. Add 2 tablespoons of the oil mixture and stir. Sprinkle immediately over the areas of greatest mole infestation. For best results, apply after a rain or thorough watering. If moles are drawn to your lawn because of the grubs feeding in the soil, you may be able to rid yourself of both pests by spreading milky spore disease to kill the grubs.

MOSQUITOES.

Prevention. Encourage natural predators such as dragonflies or praying mantises. Eliminate pools of stagnant water. Avoid wearing perfume, bright colors, flowery prints, and bright jewelry as these items attract mosquitoes.

Citronella. Burn citronella candles to repel insects.

Tansey or Basil. Plant tansey or basil around the patio and house to repel mosquitoes.

POTATO BEETLE.

Horseradish. Plant horseradish near potatoes. The potato beetle hates horseradish.

RABBITS.

Talcum powder. Rabbits hate talcum powder. Just dust a little on the ground or around the plants. When the rain washes it away add more.

RED SPIDER MITES.

Salt. Solutions of an ounce of table salt to a gallon of water can be used against red spider mites.

SLUGS AND SNAILS.

Natural Predators. Garter snakes, grass snakes, ground beetles, box turtles, salamanders, ducks, and larvae of lightning bugs all feed on snails.

Clay Pots. Place overturned clay flowerpots near the shady side of a plant. Rest one edge on a small twig or make sure that the ground is irregular enough for the slugs and snails to crawl under the rim. They will collect there during the warmest part of the day. Remove slugs and snails regularly and drop in a bucket of soapy water.

Beer. Set out saucers or jars full of stale beer, placed below ground level near the gardens. The fermented liquid draws them and they drown.

Sand, Lime, or Ashes. Snails avoid protective borders of sand, lime, or ashes.

Tin Can. Protect young plants by encircling them with a tin can with both ends removed. Put the bottom end of the can into the soil.

For More Information Call:

- **1-360-397-6118 ext. 4016** *Clark County Solid Waste* provides information about household and business hazardous waste, waste reduction, recycling, composting and other solid waste issues.
- **1-360-696-8186** *Vancouver Solid Waste* provides information about waste reduction, recycling, composting and other solid waste issues.
- **Department of Ecology: 1-360-690-7171** *Vancouver Field Office* provides information on business generated waste and water quality issues.
- **1-360-407-6300** *24 Hour Emergency Spill Response* provides for the cleanup of chemical and hazardous waste spills and leaks.
- **1-800-633-7585** *Hazardous Substance Information Office* provides information about the proper disposal of business generated hazardous products/waste.
- **1-800-RECYCLE** *Recycle Hotline* provides information about recycling non-toxic products and the disposal of household hazardous waste products.

Additional Hazardous Material/Waste brochures are available from Clark County Department of Public Works. To obtain a copy of the following brochures call 397-6118 ext. 4352.

- *Household Hazardous Material – Product Labeling*
- *Household Hazardous Material – Purchasing, Storing and Disposing*
- *Household Hazardous Material – Household Safety: Preventive Measures and Protective Equipment*
- *Safer Alternatives: Reducing The Risk In The Garage*
- *Safer Alternatives: Reducing The Risk In The Home*
- *Safer Alternatives: Reducing The Risk In The Yard And Garden*
- *Household Hazardous Waste Disposal Program*
- *Get The Point: Be Safe With Your Used Syringes*
- *Clark County Recycling Directory*

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Although attempts have been made to ensure the accuracy of the information contained in this booklet, Clark County Department of Public Works assumes no responsibility or liability for the effectiveness or results of procedures described in this publication and disclaims any injury or damage resulting from the use or effect of any product or information specified in this publication.



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